

## **REMARKS**

### **I. Introduction**

The undersigned thanks Examiner Ramana for his review and consideration of the present Application, including for indicating that claims 53 and 54 would be allowable if rewritten in independent form.

Upon entry of the present amendments, claims 47-58 are pending in the application. Claims 47, 51, 53, and 55-58 have been amended. Support for these amendments may be found, among other places, at paragraphs 77 and 83 in the specification. No new matter has been added by the present amendments. The present response is believed to overcome all of the prior Office Action rejections, and allowance of the pending claims is kindly requested.

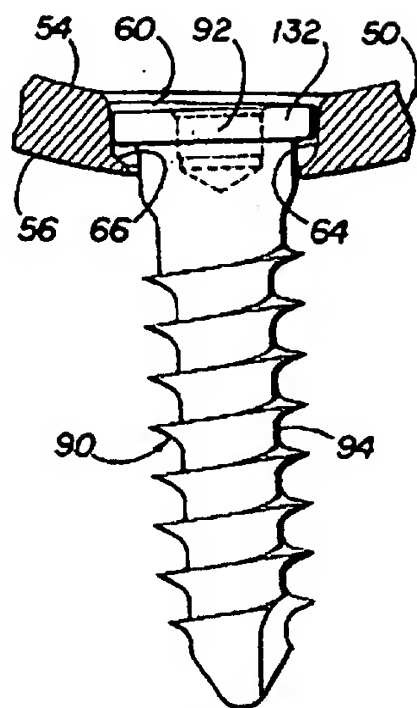
### **II. Claim Objections**

The Office Action objected to claim 58 due to informalities. Claim 58 has been amended to depend from claim 56. Thus, the undersigned respectfully requests withdrawal of this objection.

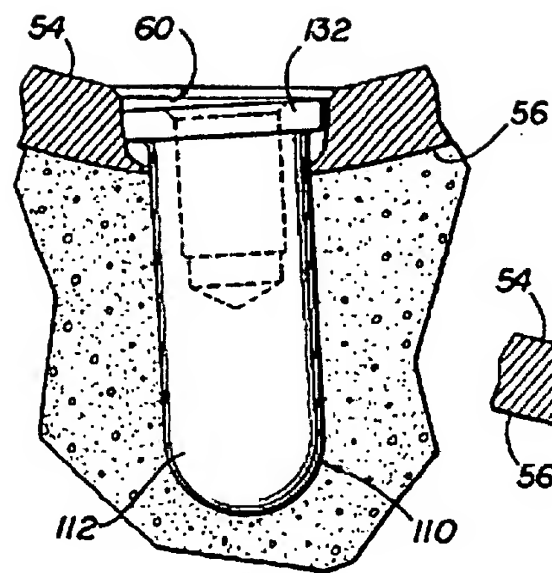
### **III. Claim Rejections**

#### ***A. The Presently Claimed Invention***

The currently pending claims recite an implantable prosthesis comprising a prosthesis component having at least two openings and an insertion member, where the openings of the prosthesis component can receive insertion members, as pictured in the non-limiting embodiments shown below.



**FIG 6**



**FIG 7**

More specifically, Figure 6 (reproduced above) shows a screw 90 received within an opening 60 of the prosthesis component 50. Figure 7 (also reproduced above) shows a peg 110 received within an opening 60 of the prosthetic component. The peg 110 has a smooth extended portion 112 such that movement of the peg 112 and the prosthesis component does not disrupt adjacent bone tissue. On the other hand, screw 90 has a threaded portion 94 that allows the screw to be securely implanted into the bone, such that, in contrast to the peg, the screw exerts tensile force at a connection interface between the screw and the opening. That is, the screw pulls against the opening, and the peg need not.

However, regardless of whether the peg, the screw, or a cover is used as the insertion member, all currently pending claims recite that the insertion member is locked into the opening in one of a plurality of angles relative to the opening so that the insertion member and the prosthesis form a rigid physical construct. The screw creates that relationship in the

presence of the tensile force, whereas the peg and the cover are locked into the rigid physical construct without pulling against the opening.

As the background section of this application discloses, the above-described “universal-type” assembly is advantageous over the “for screw only” (“FSO”) holes of the prior art. (See para. 19 of the specification.) Although FSO holes include a curved surface that allows a screw to be implanted at an angle relative to the central axis of the hole and still maintain the head within the hole, the FSO hole does not lock the screw in place, nor is it adapted to receive a peg. U.S. Patent No. 5,645,606 to Oehy et al. (“*Oehy Patent*”) is one example of such a conventional FSO hole that the present application distinguishes as conventional and different. (See para. 19 of the specification.)

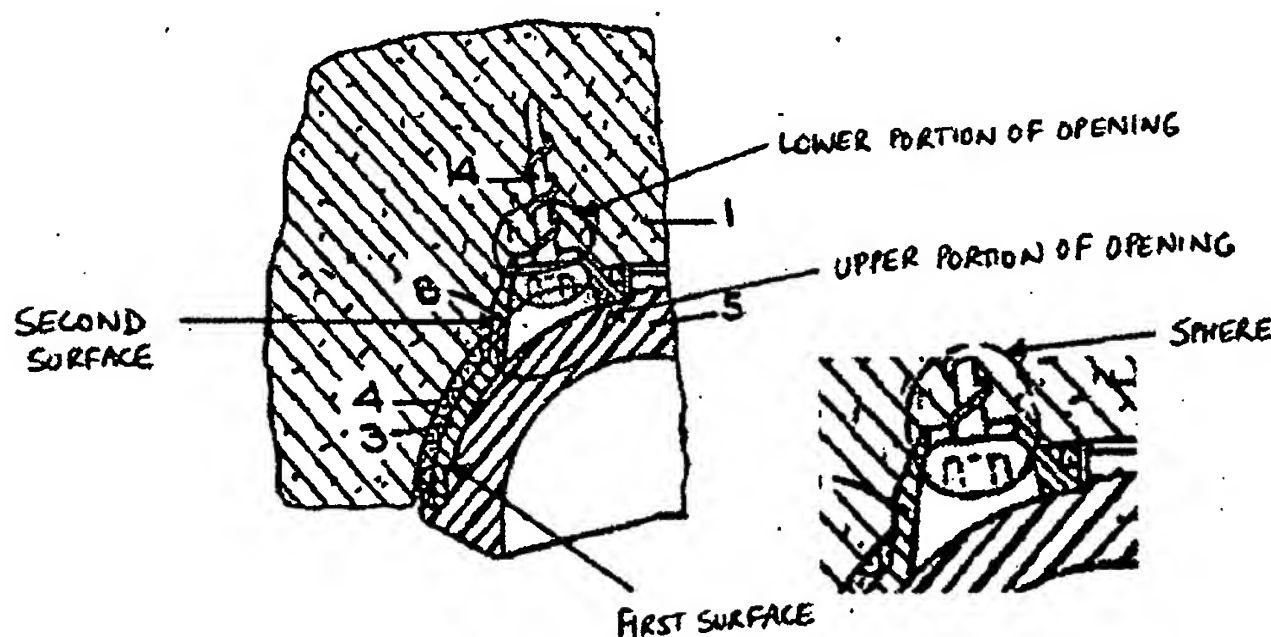
*B. §102 Rejections*

1. The *Marchetti* Patent

The Office Action rejected claims 47-50, 52, and 56-58 under 35 U.S.C. 102(b) as anticipated by U.S. Patent No. 5,156,325 to Marchetti et al. (“*Marchetti*”). *Marchetti* discloses an acetabular prosthesis having a metal supporting shell 3, to which a bone retaining screw 14 can be secured to secure the supporting shell in place.

The undersigned respectfully traverses the rejection of claims 47-50, 52, and 56-58 as anticipated by *Marchetti*, as *Marchetti* does not disclose each and every limitation of these claims. For a reference to anticipate a claim under §102, it must describe, either expressly or inherently, each and every element set forth in the claim. MPEP § 2131. *Marchetti* does not describe, either expressly or inherently, each and every element set forth in these claims.

Among other limitations, claims 47-50, 52, and 56-58 all recite that the openings of the prosthetic component have a non-threaded frustoconical taper section. For ease of reference, reproduced below is Figure 4 of *Marchetti*, as annotated in the Office Action.



This figure, as well as the rest of *Marchetti*, fails to disclose an opening having a frustoconical taper section. For this reason alone, *Marchetti* does not anticipate claims 47-50, 52, and 56-58. In addition, among other limitations, *Marchetti* fails to disclose that the screw can be inserted into the opening of the supporting shell 3 and locked in one of a plurality of angles so that the screw and the shell form a rigid physical construct at each of the angles, as required by pending claims 47-50, 52, and 56-58. For these and other reasons, the undersigned respectfully requests withdrawal of the rejection of claims 47-50, 52, and 56-58 as anticipated by *Marchetti*.

2. The *Oehy* Patent

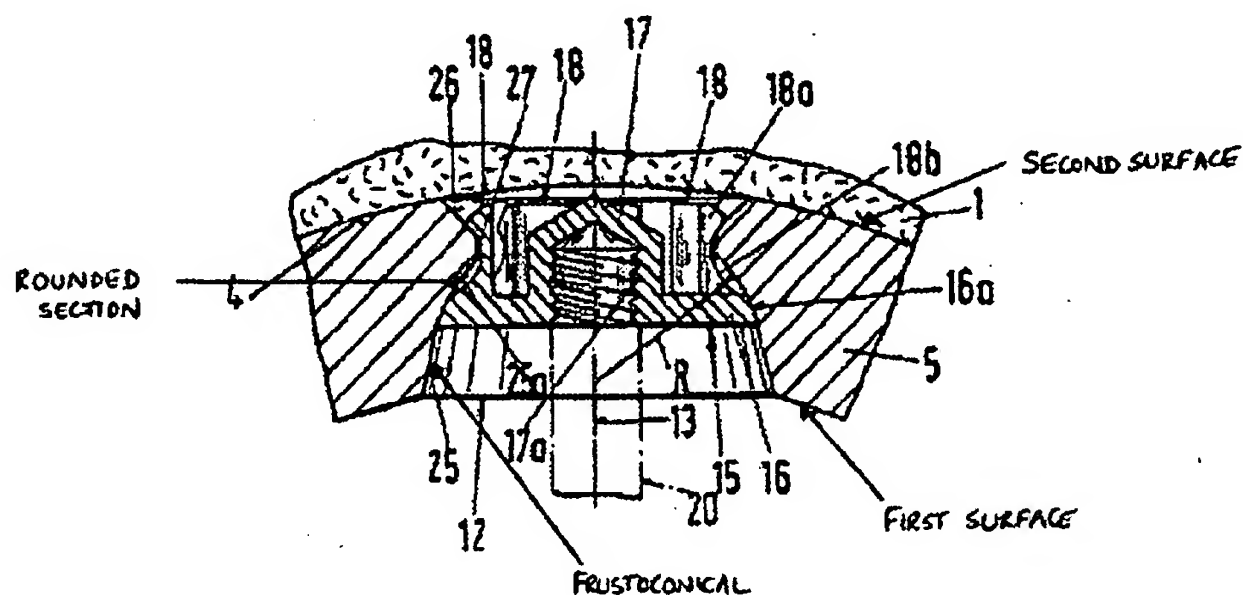
The Office Action rejected claims 47-52 and 55-58 under 35 U.S.C. 102(b) as anticipated by *Oehy*. *Oehy* discloses a shell 5 with typical FSO holes (12) that accept either a fastening element 14 or a closure plug 15.

The undersigned respectfully traverses the rejection of claims 47-52 and 55-58 as anticipated by *Oehy*, as *Oehy* does not disclose each and every limitation of these claims. For a reference to anticipate a claim under §102, it must describe, either expressly or inherently, each and every element set forth in the claim. MPEP § 2131. *Oehy* fails to describe, either expressly or inherently, each and every element set forth in the claim, in at least the following respects:

(1) Claims 47-52 and 55-58 all require that the non-frustoconical contact surface of the head of the insertion member contact the frustoconical contact taper section of the opening of the prosthetic component. *Oehy*, however, only discloses that the fastening element 14 is seatable on the concave support surface 25a. The disclosure of *Oehy* explains that this feature permits an angular positioning of the fastening element 14 through the hole 12. (Col. 3, ll. 10-18.)

(2) Not only does *Oehy* fail to disclose inserting an insertion member such that the head of the insertion member contacts the frustoconical taper section, as required by claims 47-52 and 55-58, but *Oehy* teaches away from this concept by disclosing the conventional method of seating an insertion member within the spherical surface of the opening.

(3) In addition, claim 47 requires that the head of the insertion member not contact the lower portion of the opening. As explained above, in *Oehy*, the fastening element 14 sits within the concave surface 25a (identified as the "rounded section" in the Office Action), not the frustoconical taper section (identified as 25 in the Office Action), which is contrary to this claim limitation. Figure 2 from *Oehy*, as annotated by the Office Action, is reproduced below for ease of reference. For these and other reasons, the undersigned respectfully requests that the rejection of claims 47-52 and 55-58 as anticipated by *Oehy* be withdrawn.



Nevertheless, in an attempt to move this application toward allowance, independent claims 47, 56, and 57 have been amended to clarify that the openings of the prosthetic component be adapted to interchangeably receive a screw having a threaded portion that allows the screw to be firmly implanted into the bone and either a peg or a cover, where the self-locking relationship between the peg or the cover and the opening is formed using only a taper in the frustoconical taper section and a surface of the peg or the cover. A screw has a threaded portion that allows the screw to be securely implanted into the bone in such a way that, in contrast to a peg or a cover, the screw exerts tensile force at a connection interface

between the screw and the opening. That is, the screw pulls against the opening, and the peg or cover need not. All currently pending claims recite that, regardless of whether a peg or a cover or a screw is used as the insertion member, the insertion member is locked into the opening in one of a plurality of angles relative to the opening so that the insertion member and the prosthesis form a rigid physical construct.

In contrast, *Oehy* describes a conventional FSO-type hole, the sort of hole that the applicants described as conventional. (See para. 19 of the specification.) Thus, the FSO hole of *Oehy* does not lock the screw in place, nor is it adapted to receive a peg, which does not exert tensile force at the connection interface like a screw. Accordingly, *Oehy* fails to disclose a prosthetic component having openings that can lock at a plurality of desired angles a screw, which exerts a tensile force, and either a peg or a cover, which do not exert a tensile force and also do not move relative to the prosthetic component.

Although *Oehy* discloses the use of a closure plug 15 with hole 12, that particular closure plug only works at one angle. Closure plug 15 is secured within hole 12 using flexible springs 18 and a hat-like projection 17 and pressed onto the support surface 25a of hole 12 with a sealing surface 16a. (*Oehy*, col. 3, ll. 21-36.) Accordingly, the closure plug 15 can only be inserted into the hole at a single angle and is not capable of being locked at a plurality of angles relative to the opening. Moreover, a self-locking relationship between the closure plug 15 and the opening is not formed using only a taper of a frustoconical taper section and a surface of the closure plug. Instead, as stated above, closure plug 15 is secured

within hole 12 using flexible springs 18 and a hat-like projection 17 and a sealing surface 16a.

Thus, *Oehy* fails to disclose each and every element of pending independent claims 47, 56, and 57. Claims 48-55 depend from claim 47 and are therefore patentable for the same reasons claim 47 is patentable, and may be patentable for additional reasons. Claim 58 depends from claim 56 and is therefore patentable for the same reasons claim 56 is patentable, and may be patentable for additional reasons. Accordingly, the undersigned respectfully requests allowance of the pending claims.



**CONCLUSION**

The undersigned respectfully submits that all pending claims are in condition for allowance. Any fees due at this time may be charged to Deposit Account number 11-0855. If there are any matters that can be addressed by telephone, the Examiner is urged to contact the undersigned at (404) 532-6947.

Respectfully submitted,

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